CLOUD COMPUTING: SECURITY METHODOLOGIES TO PROTECT DIGITAL DATA FROM CYBER ATTACKS

Kathy Andreína Brenes Guerrero. Instituto Tecnológico de Costa Rica Maestría en Computacion 2018

Abstract

The whole tech industry is dynamic and constantly changing. In an age of digitalization, the issues of cloud computing and data protection are extremely significant to almost everyone. Cloud Computing is a revolutionary, affordable and uncomplicated technology that provides immense flexibility in the completion of ongoing tasks. Everyone is able to use practically unlimited computing power and storage capacity, available on tap and only as much as you currently need. It's implemented in your cell phone, computer, and tablet. The most important thing is the data must be accessible on every device from anywhere in the world. However, there are no technologies capable enough to keep all users safe, even though it is currently so widely used. Numerous laws and regulations pertain to the storage and use of data, encryption algorithms, and access restriction policies, have been implemented. Even, Amazon has implemented Macie, a security service designed to automatically discover and protect sensitive data stored in AWS. All these attempts without success. The implementation referred to in this paper seeks to monitor the instances of the applications hosted in this service to alert the provider regardless of which is in case some vulnerability is found through machine learning. If this solution becomes successful we will have providers of cloud services that can guarantee the protection of your customers' information at the software level.